

ABSTRACT

When receiving a write message associated with data, an input/output controller issues a write-request message to a home processor node which holds the data in a memory. When receiving the write-request message, a memory controller in the processor node executes a consistency process on the basis of information, regarding the state of the data, stored in a directory, and sends a write-permission message to the input/output controller which has issued the write-request message. In response to the received write-permission message, the input/output controller in an input/output node issues an update message, serving as a write message, to the home processor node. In response to the received update message, the memory controller in the processor node updates the data in the main memory. In the above process, when receiving a plurality of write messages from input/output devices, the input/output controller issues write-request messages irrespective of the progress of a preceding write message. After the preceding write message is issued, the input/output controller issues the write messages.